

# ALMANAC CCXXXV SEASONS IN BCE

The almanac CCXXXV contains a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 1st millennium BCE, from the 10th century BCE to the 1st century BCE.

## 1ST MILLENNIUM BCE

This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 1st millennium BCE.

## 10TH CENTURY BCE

This is a list of a list of spring equinoxes, a list of summer solstices, a

# list of autumn equinoxes, a list of winter solstices in the 10th century BCE.

	VERNAL	SUMMER	AUTUMNAL	WINTER		
YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION
-999	3/21 1:19	6/23 7:11	9/22 22:28	12/20 8:49	11/13 0:15	5/14 9:20
-998	3/21 7:08	6/23 13:00	9/23 4:18	12/20 14:39	11/13 6:29	5/14 15:35
-997	3/21 12:58	6/23 18:49	9/23 10:09	12/20 20:30	11/13 12:44	5/14 21:49
-996	3/20 18:47	6/23 0:38	9/22 15:59	12/20 2:20	11/12 18:58	5/14 4:03
-995	3/21 0:36	6/23 6:27	9/22 21:49	12/20 8:10	11/13 1:12	5/14 10:18
-994	3/21 6:25	6/23 12:15	9/23 3:39	12/20 14:01	11/13 7:27	5/14 16:32
-993	3/21 12:14	6/23 18:04	9/23 9:29	12/20 19:51	11/13 13:41	5/14 22:46
-992	3/20 18:04	6/22 23:53	9/22 15:20	12/20 1:42	11/12 19:55	5/14 5:01
-991	3/20 23:53	6/23 5:42	9/22 21:10	12/20 7:32	11/13 2:10	5/14 11:15
-990	3/21 5:42	6/23 11:31	9/23 3:00	12/20 13:22	11/13 8:24	5/14 17:29
-989	3/21 11:31	6/23 17:20	9/23 8:50	12/20 19:13	11/13 14:38	5/14 23:44
-988	3/20 17:20	6/22 23:09	9/22 14:40	12/20 1:03	11/12 20:53	5/14 5:58
-987	3/20 23:10	6/23 4:58	9/22 20:31	12/20 6:54	11/13 3:07	5/14 12:12
-986	3/21 4:59	6/23 10:47	9/23 2:21	12/20 12:44	11/13 9:21	5/14 18:27
-985	3/21 10:48	6/23 16:36	9/23 8:11	12/20 18:35	11/13 15:35	5/15 0:41
-984	3/20 16:37	6/22 22:25	9/22 14:01	12/20 0:25	11/12 21:50	5/14 6:55
-983	3/20 22:26	6/23 4:14	9/22 19:51	12/20 6:15	11/13 4:04	5/14 13:10
-982	3/21 4:16	6/23 10:03	9/23 1:41	12/20 12:06	11/13 10:18	5/14 19:24
-981	3/21 10:05	6/23 15:52	9/23 7:32	12/20 17:56	11/13 16:33	5/15 1:38
-980	3/20 15:54	6/22 21:41	9/22 13:22	12/19 23:47	11/12 22:47	5/14 7:53
-979	3/20 21:43	6/23 3:30	9/22 19:12	12/20 5:37	11/13 5:01	5/14 14:07
-978	3/21 3:32	6/23 9:19	9/23 1:02	12/20 11:27	11/13 11:16	5/14 20:21
-977	3/21 9:22	6/23 15:08	9/23 6:52	12/20 17:18	11/13 17:30	5/15 2:35
-976	3/20 15:11	6/22 20:57	9/22 12:43	12/19 23:08	11/12 23:44	5/14 8:50
-975	3/20 21:00	6/23 2:46	9/22 18:33	12/20 4:59	11/13 5:59	5/14 15:04

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 -955 3/20 17:24 6/22 23:05 9/22 15:16 12/20 1:47 11/13 10:45 5/14 19:51  
 -954 3/20 23:13 6/23 4:54 9/22 21:07 12/20 7:37 11/13 16:59 5/15 2:05  
 -953 3/21 5:02 6/23 10:43 9/23 2:57 12/20 13:28 11/13 23:14 5/15 8:19  
 -952 3/20 10:52 6/22 16:32 9/22 8:47 12/19 19:18 11/13 5:28 5/14 14:33  
 -951 3/20 16:41 6/22 22:21 9/22 14:37 12/20 1:09 11/13 11:42 5/14 20:48  
 -950 3/20 22:30 6/23 4:10 9/22 20:27 12/20 6:59 11/13 17:57 5/15 3:02  
 -949 3/21 4:19 6/23 9:58 9/23 2:17 12/20 12:49 11/14 0:11 5/15 9:16  
 -948 3/20 10:08 6/22 15:47 9/22 8:08 12/19 18:40 11/13 6:25 5/14 15:31  
 -947 3/20 15:58 6/22 21:36 9/22 13:58 12/20 0:30 11/13 12:40 5/14 21:45  
 -946 3/20 21:47 6/23 3:25 9/22 19:48 12/20 6:21 11/13 18:54 5/15 3:59  
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 -941 3/21 2:53 6/23 8:30 9/23 0:59 12/20 11:33 11/14 2:06 5/15 11:11  
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 -933 3/21 1:26 6/23 7:02 9/22 23:40 12/20 10:16 11/14 4:00 5/15 13:06  
 -932 3/20 7:16 6/22 12:51 9/22 5:30 12/19 16:06 11/13 10:14 5/14 19:20  
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 -929 3/21 0:43 6/23 6:17 9/22 23:01 12/20 9:38 11/14 4:57 5/15 14:03  
 -928 3/20 6:32 6/22 12:06 9/22 4:51 12/19 15:28 11/13 11:12 5/14 20:17  
 -927 3/20 12:22 6/22 17:55 9/22 10:41 12/19 21:18 11/13 17:26 5/15 2:31  
 -926 3/20 18:11 6/22 23:44 9/22 16:31 12/20 3:09 11/13 23:40 5/15 8:46  
 -925 3/21 0:00 6/23 5:33 9/22 22:21 12/20 8:59 11/14 5:55 5/15 15:00  
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 -923 3/20 11:38 6/22 17:11 9/22 10:02 12/19 20:40 11/13 18:23 5/15 3:29  
 -922 3/20 17:28 6/22 23:00 9/22 15:52 12/20 2:30 11/14 0:38 5/15 9:43  
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 -916 3/20 4:23 6/22 9:54 9/22 2:53 12/19 13:33 11/13 14:03 5/14 23:09  
 -915 3/20 10:12 6/22 15:42 9/22 8:43 12/19 19:23 11/13 20:18 5/15 5:23

-914 3/20 16:01 6/22 21:31 9/22 14:33 12/20 1:14 11/14 2:32 5/15 11:38  
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 -911 3/20 9:29 6/22 14:58 9/22 8:04 12/19 18:45 11/13 21:15 5/15 6:20  
 -910 3/20 15:18 6/22 20:47 9/22 13:54 12/20 0:35 11/14 3:29 5/15 12:35  
 -909 3/20 21:07 6/23 2:36 9/22 19:44 12/20 6:26 11/14 9:44 5/15 18:49  
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 -907 3/20 8:46 6/22 14:14 9/22 7:24 12/19 18:06 11/13 22:12 5/15 7:18  
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 -903 3/20 8:02 6/22 13:30 9/22 6:45 12/19 17:28 11/13 23:10 5/15 8:15  
 -902 3/20 13:52 6/22 19:19 9/22 12:35 12/19 23:18 11/14 5:24 5/15 14:29  
 -901 3/20 19:41 6/23 1:07 9/22 18:25 12/20 5:09 11/14 11:38 5/15 20:44  
 -900 3/21 1:30 6/23 6:56 9/23 0:15 12/20 10:59 11/14 17:53 5/16 2:58

## 9TH CENTURY BCE

**This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 9th century BCE.**

	VERNAL	SUMMER	AUTUMNAL	WINTER		
YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION

-899 3/21 7:19 6/23 12:45 9/23 6:05 12/20 16:50 11/15 0:07 5/16 9:12  
 -898 3/21 13:08 6/23 18:34 9/23 11:56 12/20 22:40 11/15 6:21 5/16 15:27  
 -897 3/21 18:58 6/24 0:23 9/23 17:46 12/21 4:30 11/15 12:35 5/16 21:41  
 -896 3/21 0:47 6/23 6:12 9/22 23:36 12/20 10:21 11/14 18:50 5/16 3:55

-895 3/21 6:36 6/23 12:01 9/23 5:26 12/20 16:11 11/15 1:04 5/16 10:09  
 -894 3/21 12:25 6/23 17:50 9/23 11:16 12/20 22:02 11/15 7:18 5/16 16:24  
 -893 3/21 18:14 6/23 23:39 9/23 17:06 12/21 3:52 11/15 13:33 5/16 22:38  
 -892 3/21 0:04 6/23 5:28 9/22 22:56 12/20 9:43 11/14 19:47 5/16 4:52  
 -891 3/21 5:53 6/23 11:17 9/23 4:47 12/20 15:33 11/15 2:01 5/16 11:07  
 -890 3/21 11:42 6/23 17:06 9/23 10:37 12/20 21:23 11/15 8:16 5/16 17:21  
 -889 3/21 17:31 6/23 22:55 9/23 16:27 12/21 3:14 11/15 14:30 5/16 23:35  
 -888 3/20 23:20 6/23 4:44 9/22 22:17 12/20 9:04 11/14 20:44 5/16 5:50  
 -887 3/21 5:10 6/23 10:32 9/23 4:07 12/20 14:55 11/15 2:59 5/16 12:04  
 -886 3/21 10:59 6/23 16:21 9/23 9:57 12/20 20:45 11/15 9:13 5/16 18:18  
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 -874 3/21 8:49 6/23 14:08 9/23 7:59 12/20 18:50 11/15 12:05 5/16 21:10  
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-835 3/20 19:48 6/23 0:56 9/22 19:34 12/20 6:35 11/15 15:23 5/17 0:28  
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 -815 3/20 16:12 6/22 21:14 9/22 16:16 12/20 3:23 11/15 20:09 5/17 5:14  
 -814 3/20 22:01 6/23 3:03 9/22 22:07 12/20 9:14 11/16 2:23 5/17 11:28  
 -813 3/21 3:50 6/23 8:52 9/23 3:57 12/20 15:04 11/16 8:37 5/17 17:43  
 -812 3/20 9:40 6/22 14:41 9/22 9:47 12/19 20:54 11/15 14:52 5/16 23:57  
 -811 3/20 15:29 6/22 20:30 9/22 15:37 12/20 2:45 11/15 21:06 5/17 6:11  
 -810 3/20 21:18 6/23 2:18 9/22 21:27 12/20 8:35 11/16 3:20 5/17 12:26  
 -809 3/21 3:07 6/23 8:07 9/23 3:17 12/20 14:26 11/16 9:35 5/17 18:40  
 -808 3/20 8:56 6/22 13:56 9/22 9:07 12/19 20:16 11/15 15:49 5/17 0:54  
 -807 3/20 14:46 6/22 19:45 9/22 14:57 12/20 2:06 11/15 22:03 5/17 7:09  
 -806 3/20 20:35 6/23 1:34 9/22 20:47 12/20 7:57 11/16 4:17 5/17 13:23



-805 3/21 2:24 6/23 7:23 9/23 2:37 12/20 13:47 11/16 10:32 5/17 19:37  
 -804 3/20 8:13 6/22 13:12 9/22 8:28 12/19 19:38 11/15 16:46 5/17 1:51  
 -803 3/20 14:02 6/22 19:01 9/22 14:18 12/20 1:28 11/15 23:00 5/17 8:06  
 -802 3/20 19:52 6/23 0:50 9/22 20:08 12/20 7:18 11/16 5:15 5/17 14:20  
 -801 3/21 1:41 6/23 6:39 9/23 1:58 12/20 13:09 11/16 11:29 5/17 20:34  
 -800 3/20 7:30 6/22 12:27 9/22 7:48 12/19 18:59 11/15 17:43 5/17 2:49

## 8TH CENTURY BCE

This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 8th century BCE.

	VERNAL	SUMMER	AUTUMNAL	WINTER		
YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION
-799	3/20 13:19	6/22 18:16	9/22 13:38	12/20 0:50	11/15 23:58	5/17 9:03
-798	3/20 19:08	6/23 0:05	9/22 19:28	12/20 6:40	11/16 6:12	5/17 15:17
-797	3/21 0:58	6/23 5:54	9/23 1:18	12/20 12:30	11/16 12:26	5/17 21:32
-796	3/20 6:47	6/22 11:43	9/22 7:08	12/19 18:21	11/15 18:41	5/17 3:46
-795	3/20 12:36	6/22 17:32	9/22 12:59	12/20 0:11	11/16 0:55	5/17 10:00
-794	3/20 18:25	6/22 23:21	9/22 18:49	12/20 6:02	11/16 7:09	5/17 16:15
-793	3/21 0:14	6/23 5:10	9/23 0:39	12/20 11:52	11/16 13:23	5/17 22:29
-792	3/20 6:04	6/22 10:59	9/22 6:29	12/19 17:42	11/15 19:38	5/17 4:43
-791	3/20 11:53	6/22 16:47	9/22 12:19	12/19 23:33	11/16 1:52	5/17 10:57
-790	3/20 17:42	6/22 22:36	9/22 18:09	12/20 5:23	11/16 8:06	5/17 17:12
-789	3/20 23:31	6/23 4:25	9/22 23:59	12/20 11:14	11/16 14:21	5/17 23:26
-788	3/20 5:20	6/22 10:14	9/22 5:49	12/19 17:04	11/15 20:35	5/17 5:40
-787	3/20 11:10	6/22 16:03	9/22 11:39	12/19 22:54	11/16 2:49	5/17 11:55

-786 3/20 16:59 6/22 21:52 9/22 17:29 12/20 4:45 11/16 9:04 5/17 18:09  
 -785 3/20 22:48 6/23 3:41 9/22 23:20 12/20 10:35 11/16 15:18 5/18 0:23  
 -784 3/20 4:37 6/22 9:30 9/22 5:10 12/19 16:25 11/15 21:32 5/17 6:38  
 -783 3/20 10:26 6/22 15:19 9/22 11:00 12/19 22:16 11/16 3:46 5/17 12:52  
 -782 3/20 16:16 6/22 21:07 9/22 16:50 12/20 4:06 11/16 10:01 5/17 19:06  
 -781 3/20 22:05 6/23 2:56 9/22 22:40 12/20 9:57 11/16 16:15 5/18 1:20  
 -780 3/20 3:54 6/22 8:45 9/22 4:30 12/19 15:47 11/15 22:29 5/17 7:35  
 -779 3/20 9:43 6/22 14:34 9/22 10:20 12/19 21:37 11/16 4:44 5/17 13:49  
 -778 3/20 15:32 6/22 20:23 9/22 16:10 12/20 3:28 11/16 10:58 5/17 20:03  
 -777 3/20 21:22 6/23 2:12 9/22 22:00 12/20 9:18 11/16 17:12 5/18 2:18  
 -776 3/20 3:11 6/22 8:01 9/22 3:50 12/19 15:09 11/15 23:27 5/17 8:32  
 -775 3/20 9:00 6/22 13:50 9/22 9:40 12/19 20:59 11/16 5:41 5/17 14:46  
 -774 3/20 14:49 6/22 19:38 9/22 15:31 12/20 2:49 11/16 11:55 5/17 21:01  
 -773 3/20 20:38 6/23 1:27 9/22 21:21 12/20 8:40 11/16 18:09 5/18 3:15  
 -772 3/20 2:28 6/22 7:16 9/22 3:11 12/19 14:30 11/16 0:24 5/17 9:29  
 -771 3/20 8:17 6/22 13:05 9/22 9:01 12/19 20:21 11/16 6:38 5/17 15:43  
 -770 3/20 14:06 6/22 18:54 9/22 14:51 12/20 2:11 11/16 12:52 5/17 21:58  
 -769 3/20 19:55 6/23 0:43 9/22 20:41 12/20 8:01 11/16 19:07 5/18 4:12  
 -768 3/20 1:44 6/22 6:32 9/22 2:31 12/19 13:52 11/16 1:21 5/17 10:26  
 -767 3/20 7:34 6/22 12:21 9/22 8:21 12/19 19:42 11/16 7:35 5/17 16:41  
 -766 3/20 13:23 6/22 18:10 9/22 14:11 12/20 1:33 11/16 13:50 5/17 22:55  
 -765 3/20 19:12 6/22 23:58 9/22 20:01 12/20 7:23 11/16 20:04 5/18 5:09  
 -764 3/20 1:01 6/22 5:47 9/22 1:51 12/19 13:13 11/16 2:18 5/17 11:24  
 -763 3/20 6:50 6/22 11:36 9/22 7:42 12/19 19:04 11/16 8:32 5/17 17:38  
 -762 3/20 12:40 6/22 17:25 9/22 13:32 12/20 0:54 11/16 14:47 5/17 23:52  
 -761 3/20 18:29 6/22 23:14 9/22 19:22 12/20 6:44 11/16 21:01 5/18 6:06  
 -760 3/20 0:18 6/22 5:03 9/22 1:12 12/19 12:35 11/16 3:15 5/17 12:21  
 -759 3/20 6:07 6/22 10:52 9/22 7:02 12/19 18:25 11/16 9:30 5/17 18:35  
 -758 3/20 11:56 6/22 16:41 9/22 12:52 12/20 0:16 11/16 15:44 5/18 0:49  
 -757 3/20 17:46 6/22 22:29 9/22 18:42 12/20 6:06 11/16 21:58 5/18 7:04

-756 3/19 23:35 6/22 4:18 9/22 0:32 12/19 11:56 11/16 4:13 5/17 13:18  
 -755 3/20 5:24 6/22 10:07 9/22 6:22 12/19 17:47 11/16 10:27 5/17 19:32  
 -754 3/20 11:13 6/22 15:56 9/22 12:12 12/19 23:37 11/16 16:41 5/18 1:46  
 -753 3/20 17:02 6/22 21:45 9/22 18:02 12/20 5:28 11/16 22:55 5/18 8:01  
 -752 3/19 22:52 6/22 3:34 9/21 23:52 12/19 11:18 11/16 5:10 5/17 14:15  
 -751 3/20 4:41 6/22 9:23 9/22 5:43 12/19 17:08 11/16 11:24 5/17 20:29  
 -750 3/20 10:30 6/22 15:12 9/22 11:33 12/19 22:59 11/16 17:38 5/18 2:44  
 -749 3/20 16:19 6/22 21:00 9/22 17:23 12/20 4:49 11/16 23:53 5/18 8:58  
 -748 3/19 22:08 6/22 2:49 9/21 23:13 12/19 10:39 11/16 6:07 5/17 15:12  
 -747 3/20 3:58 6/22 8:38 9/22 5:03 12/19 16:30 11/16 12:21 5/17 21:27  
 -746 3/20 9:47 6/22 14:27 9/22 10:53 12/19 22:20 11/16 18:35 5/18 3:41  
 -745 3/20 15:36 6/22 20:16 9/22 16:43 12/20 4:11 11/17 0:50 5/18 9:55  
 -744 3/19 21:25 6/22 2:05 9/21 22:33 12/19 10:01 11/16 7:04 5/17 16:09  
 -743 3/20 3:14 6/22 7:54 9/22 4:23 12/19 15:51 11/16 13:18 5/17 22:24  
 -742 3/20 9:04 6/22 13:43 9/22 10:13 12/19 21:42 11/16 19:33 5/18 4:38  
 -741 3/20 14:53 6/22 19:31 9/22 16:03 12/20 3:32 11/17 1:47 5/18 10:52  
 -740 3/19 20:42 6/22 1:20 9/21 21:53 12/19 9:23 11/16 8:01 5/17 17:07  
 -739 3/20 2:31 6/22 7:09 9/22 3:43 12/19 15:13 11/16 14:16 5/17 23:21  
 -738 3/20 8:20 6/22 12:58 9/22 9:34 12/19 21:03 11/16 20:30 5/18 5:35  
 -737 3/20 14:10 6/22 18:47 9/22 15:24 12/20 2:54 11/17 2:44 5/18 11:50  
 -736 3/19 19:59 6/22 0:36 9/21 21:14 12/19 8:44 11/16 8:58 5/17 18:04  
 -735 3/20 1:48 6/22 6:25 9/22 3:04 12/19 14:35 11/16 15:13 5/18 0:18  
 -734 3/20 7:37 6/22 12:13 9/22 8:54 12/19 20:25 11/16 21:27 5/18 6:32  
 -733 3/20 13:26 6/22 18:02 9/22 14:44 12/20 2:15 11/17 3:41 5/18 12:47  
 -732 3/19 19:16 6/21 23:51 9/21 20:34 12/19 8:06 11/16 9:56 5/17 19:01  
 -731 3/20 1:05 6/22 5:40 9/22 2:24 12/19 13:56 11/16 16:10 5/18 1:15  
 -730 3/20 6:54 6/22 11:29 9/22 8:14 12/19 19:46 11/16 22:24 5/18 7:30  
 -729 3/20 12:43 6/22 17:18 9/22 14:04 12/20 1:37 11/17 4:38 5/18 13:44  
 -728 3/19 18:32 6/21 23:07 9/21 19:54 12/19 7:27 11/16 10:53 5/17 19:58  
 -727 3/20 0:22 6/22 4:56 9/22 1:44 12/19 13:18 11/16 17:07 5/18 2:12

-726 3/20 6:11 6/22 10:44 9/22 7:34 12/19 19:08 11/16 23:21 5/18 8:27  
 -725 3/20 12:00 6/22 16:33 9/22 13:25 12/20 0:58 11/17 5:36 5/18 14:41  
 -724 3/19 17:49 6/21 22:22 9/21 19:15 12/19 6:49 11/16 11:50 5/17 20:55  
 -723 3/19 23:38 6/22 4:11 9/22 1:05 12/19 12:39 11/16 18:04 5/18 3:10  
 -722 3/20 5:28 6/22 10:00 9/22 6:55 12/19 18:30 11/17 0:19 5/18 9:24  
 -721 3/20 11:17 6/22 15:49 9/22 12:45 12/20 0:20 11/17 6:33 5/18 15:38  
 -720 3/19 17:06 6/21 21:38 9/21 18:35 12/19 6:10 11/16 12:47 5/17 21:53  
 -719 3/19 22:55 6/22 3:26 9/22 0:25 12/19 12:01 11/16 19:01 5/18 4:07  
 -718 3/20 4:44 6/22 9:15 9/22 6:15 12/19 17:51 11/17 1:16 5/18 10:21  
 -717 3/20 10:34 6/22 15:04 9/22 12:05 12/19 23:41 11/17 7:30 5/18 16:35  
 -716 3/19 16:23 6/21 20:53 9/21 17:55 12/19 5:32 11/16 13:44 5/17 22:50  
 -715 3/19 22:12 6/22 2:42 9/21 23:45 12/19 11:22 11/16 19:59 5/18 5:04  
 -714 3/20 4:01 6/22 8:31 9/22 5:35 12/19 17:13 11/17 2:13 5/18 11:18  
 -713 3/20 9:50 6/22 14:20 9/22 11:25 12/19 23:03 11/17 8:27 5/18 17:33  
 -712 3/19 15:40 6/21 20:08 9/21 17:15 12/19 4:53 11/16 14:41 5/17 23:47  
 -711 3/19 21:29 6/22 1:57 9/21 23:05 12/19 10:44 11/16 20:56 5/18 6:01  
 -710 3/20 3:18 6/22 7:46 9/22 4:55 12/19 16:34 11/17 3:10 5/18 12:15  
 -709 3/20 9:07 6/22 13:35 9/22 10:46 12/19 22:24 11/17 9:24 5/18 18:30  
 -708 3/19 14:56 6/21 19:24 9/21 16:36 12/19 4:15 11/16 15:39 5/18 0:44  
 -707 3/19 20:46 6/22 1:13 9/21 22:26 12/19 10:05 11/16 21:53 5/18 6:58  
 -706 3/20 2:35 6/22 7:02 9/22 4:16 12/19 15:56 11/17 4:07 5/18 13:13  
 -705 3/20 8:24 6/22 12:50 9/22 10:06 12/19 21:46 11/17 10:22 5/18 19:27  
 -704 3/19 14:13 6/21 18:39 9/21 15:56 12/19 3:36 11/16 16:36 5/18 1:41  
 -703 3/19 20:02 6/22 0:28 9/21 21:46 12/19 9:27 11/16 22:50 5/18 7:56  
 -702 3/20 1:52 6/22 6:17 9/22 3:36 12/19 15:17 11/17 5:04 5/18 14:10  
 -701 3/20 7:41 6/22 12:06 9/22 9:26 12/19 21:08 11/17 11:19 5/18 20:24  
 -700 3/20 13:30 6/22 17:55 9/22 15:16 12/20 2:58 11/17 17:33 5/19 2:38

## 7TH CENTURY BCE

**This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 7th century BCE.**

	VERNAL	SUMMER	AUTUMNAL	WINTER		
YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION
-699	3/20 19:19	6/22 23:44	9/22 21:06	12/20 8:48	11/17 23:47	5/19 8:53
-698	3/21 1:08	6/23 5:32	9/23 2:56	12/20 14:39	11/18 6:02	5/19 15:07
-697	3/21 6:58	6/23 11:21	9/23 8:46	12/20 20:29	11/18 12:16	5/19 21:21
-696	3/20 12:47	6/22 17:10	9/22 14:36	12/20 2:19	11/17 18:30	5/19 3:36
-695	3/20 18:36	6/22 22:59	9/22 20:26	12/20 8:10	11/18 0:44	5/19 9:50
-694	3/21 0:25	6/23 4:48	9/23 2:16	12/20 14:00	11/18 6:59	5/19 16:04
-693	3/21 6:14	6/23 10:37	9/23 8:06	12/20 19:51	11/18 13:13	5/19 22:18
-692	3/20 12:04	6/22 16:26	9/22 13:57	12/20 1:41	11/17 19:27	5/19 4:33
-691	3/20 17:53	6/22 22:14	9/22 19:47	12/20 7:31	11/18 1:42	5/19 10:47
-690	3/20 23:42	6/23 4:03	9/23 1:37	12/20 13:22	11/18 7:56	5/19 17:01
-689	3/21 5:31	6/23 9:52	9/23 7:27	12/20 19:12	11/18 14:10	5/19 23:16
-688	3/20 11:20	6/22 15:41	9/22 13:17	12/20 1:02	11/17 20:24	5/19 5:30
-687	3/20 17:10	6/22 21:30	9/22 19:07	12/20 6:53	11/18 2:39	5/19 11:44
-686	3/20 22:59	6/23 3:19	9/23 0:57	12/20 12:43	11/18 8:53	5/19 17:58
-685	3/21 4:48	6/23 9:07	9/23 6:47	12/20 18:34	11/18 15:07	5/20 0:13
-684	3/20 10:37	6/22 14:56	9/22 12:37	12/20 0:24	11/17 21:22	5/19 6:27
-683	3/20 16:26	6/22 20:45	9/22 18:27	12/20 6:14	11/18 3:36	5/19 12:41
-682	3/20 22:16	6/23 2:34	9/23 0:17	12/20 12:05	11/18 9:50	5/19 18:56
-681	3/21 4:05	6/23 8:23	9/23 6:07	12/20 17:55	11/18 16:04	5/20 1:10
-680	3/20 9:54	6/22 14:12	9/22 11:57	12/19 23:46	11/17 22:19	5/19 7:24
-679	3/20 15:43	6/22 20:01	9/22 17:47	12/20 5:36	11/18 4:33	5/19 13:38
-678	3/20 21:32	6/23 1:49	9/22 23:37	12/20 11:26	11/18 10:47	5/19 19:53

-677 3/21 3:22 6/23 7:38 9/23 5:27 12/20 17:17 11/18 17:02 5/20 2:07  
 -676 3/20 9:11 6/22 13:27 9/22 11:17 12/19 23:07 11/17 23:16 5/19 8:21  
 -675 3/20 15:00 6/22 19:16 9/22 17:07 12/20 4:57 11/18 5:30 5/19 14:36  
 -674 3/20 20:49 6/23 1:05 9/22 22:57 12/20 10:48 11/18 11:45 5/19 20:50  
 -673 3/21 2:38 6/23 6:54 9/23 4:47 12/20 16:38 11/18 17:59 5/20 3:04  
 -672 3/20 8:28 6/22 12:43 9/22 10:38 12/19 22:29 11/18 0:13 5/19 9:18  
 -671 3/20 14:17 6/22 18:31 9/22 16:28 12/20 4:19 11/18 6:27 5/19 15:33  
 -670 3/20 20:06 6/23 0:20 9/22 22:18 12/20 10:09 11/18 12:42 5/19 21:47  
 -669 3/21 1:55 6/23 6:09 9/23 4:08 12/20 16:00 11/18 18:56 5/20 4:01  
 -668 3/20 7:44 6/22 11:58 9/22 9:58 12/19 21:50 11/18 1:10 5/19 10:16  
 -667 3/20 13:34 6/22 17:47 9/22 15:48 12/20 3:40 11/18 7:25 5/19 16:30  
 -666 3/20 19:23 6/22 23:36 9/22 21:38 12/20 9:31 11/18 13:39 5/19 22:44  
 -665 3/21 1:12 6/23 5:24 9/23 3:28 12/20 15:21 11/18 19:53 5/20 4:58  
 -664 3/20 7:01 6/22 11:13 9/22 9:18 12/19 21:12 11/18 2:07 5/19 11:13  
 -663 3/20 12:50 6/22 17:02 9/22 15:08 12/20 3:02 11/18 8:22 5/19 17:27  
 -662 3/20 18:40 6/22 22:51 9/22 20:58 12/20 8:52 11/18 14:36 5/19 23:41  
 -661 3/21 0:29 6/23 4:40 9/23 2:48 12/20 14:43 11/18 20:50 5/20 5:56  
 -660 3/20 6:18 6/22 10:29 9/22 8:38 12/19 20:33 11/18 3:05 5/19 12:10  
 -659 3/20 12:07 6/22 16:17 9/22 14:28 12/20 2:23 11/18 9:19 5/19 18:24  
 -658 3/20 17:56 6/22 22:06 9/22 20:18 12/20 8:14 11/18 15:33 5/20 0:38  
 -657 3/20 23:46 6/23 3:55 9/23 2:08 12/20 14:04 11/18 21:47 5/20 6:53  
 -656 3/20 5:35 6/22 9:44 9/22 7:58 12/19 19:55 11/18 4:02 5/19 13:07  
 -655 3/20 11:24 6/22 15:33 9/22 13:48 12/20 1:45 11/18 10:16 5/19 19:21  
 -654 3/20 17:13 6/22 21:22 9/22 19:38 12/20 7:35 11/18 16:30 5/20 1:36  
 -653 3/20 23:02 6/23 3:10 9/23 1:28 12/20 13:26 11/18 22:45 5/20 7:50  
 -652 3/20 4:52 6/22 8:59 9/22 7:18 12/19 19:16 11/18 4:59 5/19 14:04  
 -651 3/20 10:41 6/22 14:48 9/22 13:08 12/20 1:06 11/18 11:13 5/19 20:18  
 -650 3/20 16:30 6/22 20:37 9/22 18:58 12/20 6:57 11/18 17:27 5/20 2:33  
 -649 3/20 22:19 6/23 2:26 9/23 0:48 12/20 12:47 11/18 23:42 5/20 8:47  
 -648 3/20 4:08 6/22 8:15 9/22 6:38 12/19 18:38 11/18 5:56 5/19 15:01

-647 3/20 9:58 6/22 14:04 9/22 12:28 12/20 0:28 11/18 12:10 5/19 21:16  
 -646 3/20 15:47 6/22 19:52 9/22 18:18 12/20 6:18 11/18 18:25 5/20 3:30  
 -645 3/20 21:36 6/23 1:41 9/23 0:09 12/20 12:09 11/19 0:39 5/20 9:44  
 -644 3/20 3:25 6/22 7:30 9/22 5:59 12/19 17:59 11/18 6:53 5/19 15:58  
 -643 3/20 9:14 6/22 13:19 9/22 11:49 12/19 23:49 11/18 13:07 5/19 22:13  
 -642 3/20 15:04 6/22 19:08 9/22 17:39 12/20 5:40 11/18 19:22 5/20 4:27  
 -641 3/20 20:53 6/23 0:57 9/22 23:29 12/20 11:30 11/19 1:36 5/20 10:41  
 -640 3/20 2:42 6/22 6:45 9/22 5:19 12/19 17:21 11/18 7:50 5/19 16:56  
 -639 3/20 8:31 6/22 12:34 9/22 11:09 12/19 23:11 11/18 14:05 5/19 23:10  
 -638 3/20 14:20 6/22 18:23 9/22 16:59 12/20 5:01 11/18 20:19 5/20 5:24  
 -637 3/20 20:10 6/23 0:12 9/22 22:49 12/20 10:52 11/19 2:33 5/20 11:38  
 -636 3/20 1:59 6/22 6:01 9/22 4:39 12/19 16:42 11/18 8:47 5/19 17:53  
 -635 3/20 7:48 6/22 11:49 9/22 10:29 12/19 22:32 11/18 15:02 5/20 0:07  
 -634 3/20 13:37 6/22 17:38 9/22 16:19 12/20 4:23 11/18 21:16 5/20 6:21  
 -633 3/20 19:26 6/22 23:27 9/22 22:09 12/20 10:13 11/19 3:30 5/20 12:36  
 -632 3/20 1:16 6/22 5:16 9/22 3:59 12/19 16:04 11/18 9:44 5/19 18:50  
 -631 3/20 7:05 6/22 11:05 9/22 9:49 12/19 21:54 11/18 15:59 5/20 1:04  
 -630 3/20 12:54 6/22 16:54 9/22 15:39 12/20 3:44 11/18 22:13 5/20 7:18  
 -629 3/20 18:43 6/22 22:42 9/22 21:29 12/20 9:35 11/19 4:27 5/20 13:33  
 -628 3/20 0:32 6/22 4:31 9/22 3:19 12/19 15:25 11/18 10:42 5/19 19:47  
 -627 3/20 6:22 6/22 10:20 9/22 9:09 12/19 21:15 11/18 16:56 5/20 2:01  
 -626 3/20 12:11 6/22 16:09 9/22 14:59 12/20 3:06 11/18 23:10 5/20 8:16  
 -625 3/20 18:00 6/22 21:58 9/22 20:49 12/20 8:56 11/19 5:24 5/20 14:30  
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 -620 3/19 23:06 6/22 3:02 9/22 1:59 12/19 14:08 11/18 12:36 5/19 21:41  
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-617 3/20 16:34 6/22 20:28 9/22 19:29 12/20 7:39 11/19 7:19 5/20 16:24  
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 -613 3/20 15:50 6/22 19:44 9/22 18:49 12/20 7:01 11/19 8:16 5/20 17:21  
 -612 3/19 21:40 6/22 1:33 9/22 0:39 12/19 12:51 11/18 14:30 5/19 23:36  
 -611 3/20 3:29 6/22 7:21 9/22 6:29 12/19 18:41 11/18 20:44 5/20 5:50  
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 -609 3/20 15:07 6/22 18:59 9/22 18:09 12/20 6:22 11/19 9:13 5/20 18:18  
 -608 3/19 20:56 6/22 0:48 9/21 23:59 12/19 12:12 11/18 15:27 5/20 0:33  
 -607 3/20 2:46 6/22 6:37 9/22 5:49 12/19 18:03 11/18 21:42 5/20 6:47  
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 -602 3/20 7:52 6/22 11:41 9/22 10:59 12/19 23:15 11/19 4:53 5/20 13:58  
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## 6TH CENTURY BCE

**This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 6th century BCE.**

	VERNAL	SUMMER	AUTUMNAL	WINTER		
YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION

-599 3/21 1:19 6/23 5:07 9/23 4:29 12/20 16:46 11/19 23:36 5/21 8:41



-598 3/21 7:08 6/23 10:56 9/23 10:19 12/20 22:36 11/20 5:50 5/21 14:55  
 -597 3/21 12:58 6/23 16:45 9/23 16:09 12/21 4:26 11/20 12:04 5/21 21:10  
 -596 3/20 18:47 6/22 22:34 9/22 21:59 12/20 10:17 11/19 18:19 5/21 3:24  
 -595 3/21 0:36 6/23 4:22 9/23 3:50 12/20 16:07 11/20 0:33 5/21 9:38  
 -594 3/21 6:25 6/23 10:11 9/23 9:40 12/20 21:58 11/20 6:47 5/21 15:53  
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 -590 3/21 5:42 6/23 9:27 9/23 9:00 12/20 21:19 11/20 7:44 5/21 16:50  
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 -588 3/20 17:20 6/22 21:04 9/22 20:40 12/20 9:00 11/19 20:13 5/21 5:18  
 -587 3/20 23:10 6/23 2:53 9/23 2:30 12/20 14:50 11/20 2:27 5/21 11:33  
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 -585 3/21 10:48 6/23 14:31 9/23 14:10 12/21 2:31 11/20 14:56 5/22 0:01  
 -584 3/20 16:37 6/22 20:19 9/22 20:00 12/20 8:21 11/19 21:10 5/21 6:15  
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 -578 3/21 3:32 6/23 7:12 9/23 7:00 12/20 19:23 11/20 10:36 5/21 19:41  
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 -576 3/20 15:11 6/22 18:50 9/22 18:40 12/20 7:04 11/19 23:04 5/21 8:10  
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-568 3/20 13:44 6/22 17:20 9/22 17:20 12/20 5:47 11/20 0:58 5/21 10:04  
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-538 3/20 20:20 6/22 23:44 9/23 0:19 12/20 12:58 11/20 20:07 5/22 5:12  
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 -525 3/21 0:00 6/23 3:19 9/23 4:09 12/20 16:53 11/21 5:12 5/22 14:18  
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 -515 3/20 10:12 6/22 13:27 9/22 14:29 12/20 3:16 11/20 19:35 5/22 4:40  
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 -512 3/20 3:40 6/22 6:53 9/22 7:58 12/19 20:47 11/20 14:18 5/21 23:23  
 -511 3/20 9:29 6/22 12:42 9/22 13:48 12/20 2:38 11/20 20:32 5/22 5:37  
 -510 3/20 15:18 6/22 18:31 9/22 19:38 12/20 8:28 11/21 2:46 5/22 11:52  
 -509 3/20 21:07 6/23 0:19 9/23 1:28 12/20 14:18 11/21 9:00 5/22 18:06

-508 3/20 2:56 6/22 6:08 9/22 7:18 12/19 20:09 11/20 15:15 5/22 0:20  
 -507 3/20 8:46 6/22 11:57 9/22 13:08 12/20 1:59 11/20 21:29 5/22 6:34  
 -506 3/20 14:35 6/22 17:46 9/22 18:58 12/20 7:49 11/21 3:43 5/22 12:49  
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 -504 3/20 2:13 6/22 5:23 9/22 6:38 12/19 19:30 11/20 16:12 5/22 1:17  
 -503 3/20 8:02 6/22 11:12 9/22 12:28 12/20 1:20 11/20 22:26 5/22 7:31  
 -502 3/20 13:52 6/22 17:01 9/22 18:18 12/20 7:11 11/21 4:40 5/22 13:46  
 -501 3/20 19:41 6/22 22:50 9/23 0:08 12/20 13:01 11/21 10:55 5/22 20:00  
 -500 3/21 1:30 6/23 4:38 9/23 5:58 12/20 18:51 11/21 17:09 5/23 2:14

## 5TH CENTURY BCE

This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 5th century BCE.

	VERNAL	SUMMER	AUTUMNAL	WINTER		
YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION

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 -498 3/21 13:08 6/23 16:16 9/23 17:38 12/21 6:32 11/22 5:37 5/23 14:43  
 -497 3/21 18:58 6/23 22:05 9/23 23:28 12/21 12:23 11/22 11:52 5/23 20:57  
 -496 3/21 0:47 6/23 3:54 9/23 5:18 12/20 18:13 11/21 18:06 5/23 3:11  
 -495 3/21 6:36 6/23 9:42 9/23 11:08 12/21 0:03 11/22 0:20 5/23 9:26  
 -494 3/21 12:25 6/23 15:31 9/23 16:58 12/21 5:54 11/22 6:34 5/23 15:40  
 -493 3/21 18:14 6/23 21:20 9/23 22:48 12/21 11:44 11/22 12:49 5/23 21:54  
 -492 3/21 0:04 6/23 3:09 9/23 4:38 12/20 17:34 11/21 19:03 5/23 4:08  
 -491 3/21 5:53 6/23 8:57 9/23 10:28 12/20 23:25 11/22 1:17 5/23 10:23  
 -490 3/21 11:42 6/23 14:46 9/23 16:18 12/21 5:15 11/22 7:32 5/23 16:37

-489 3/21 17:31 6/23 20:35 9/23 22:08 12/21 11:05 11/22 13:46 5/23 22:51  
 -488 3/20 23:20 6/23 2:24 9/23 3:58 12/20 16:56 11/21 20:00 5/23 5:05  
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 -480 3/20 21:54 6/23 0:54 9/23 2:37 12/20 15:38 11/21 21:54 5/23 7:00  
 -479 3/21 3:43 6/23 6:43 9/23 8:27 12/20 21:29 11/22 4:08 5/23 13:14  
 -478 3/21 9:32 6/23 12:32 9/23 14:17 12/21 3:19 11/22 10:23 5/23 19:28  
 -477 3/21 15:22 6/23 18:20 9/23 20:07 12/21 9:10 11/22 16:37 5/24 1:42  
 -476 3/20 21:11 6/23 0:09 9/23 1:57 12/20 15:00 11/21 22:51 5/23 7:57  
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 -465 3/21 13:12 6/23 16:06 9/23 18:06 12/21 7:14 11/22 19:28 5/24 4:34  
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-459 3/21 0:07 6/23 2:58 9/23 5:06 12/20 18:16 11/22 8:54 5/23 17:59  
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 -434 3/21 1:37 6/23 4:17 9/23 6:54 12/20 20:14 11/22 20:50 5/24 5:56  
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 -432 3/20 13:16 6/22 15:55 9/22 18:34 12/20 7:55 11/22 9:19 5/23 18:24  
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 -430 3/21 0:54 6/23 3:32 9/23 6:14 12/20 19:36 11/22 21:47 5/24 6:53

-429 3/21 6:43 6/23 9:21 9/23 12:04 12/21 1:26 11/23 4:02 5/24 13:07  
 -428 3/20 12:32 6/22 15:10 9/22 17:54 12/20 7:17 11/22 10:16 5/23 19:21  
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 -426 3/21 0:11 6/23 2:47 9/23 5:34 12/20 18:57 11/22 22:44 5/24 7:50  
 -425 3/21 6:00 6/23 8:36 9/23 11:24 12/21 0:48 11/23 4:59 5/24 14:04  
 -424 3/20 11:49 6/22 14:25 9/22 17:14 12/20 6:38 11/22 11:13 5/23 20:18  
 -423 3/20 17:38 6/22 20:14 9/22 23:04 12/20 12:28 11/22 17:27 5/24 2:33  
 -422 3/20 23:28 6/23 2:02 9/23 4:54 12/20 18:19 11/22 23:41 5/24 8:47  
 -421 3/21 5:17 6/23 7:51 9/23 10:44 12/21 0:09 11/23 5:56 5/24 15:01  
 -420 3/20 11:06 6/22 13:40 9/22 16:33 12/20 5:59 11/22 12:10 5/23 21:15  
 -419 3/20 16:55 6/22 19:29 9/22 22:23 12/20 11:50 11/22 18:24 5/24 3:30  
 -418 3/20 22:44 6/23 1:17 9/23 4:13 12/20 17:40 11/23 0:38 5/24 9:44  
 -417 3/21 4:34 6/23 7:06 9/23 10:03 12/20 23:30 11/23 6:53 5/24 15:58  
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 -413 3/21 3:50 6/23 6:21 9/23 9:23 12/20 22:52 11/23 7:50 5/24 16:55  
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 -411 3/20 15:29 6/22 17:59 9/22 21:03 12/20 10:32 11/22 20:18 5/24 5:24  
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 -409 3/21 3:07 6/23 5:36 9/23 8:43 12/20 22:13 11/23 8:47 5/24 17:52  
 -408 3/20 8:56 6/22 11:25 9/22 14:32 12/20 4:03 11/22 15:01 5/24 0:06  
 -407 3/20 14:46 6/22 17:14 9/22 20:22 12/20 9:54 11/22 21:15 5/24 6:21  
 -406 3/20 20:35 6/22 23:02 9/23 2:12 12/20 15:44 11/23 3:29 5/24 12:35  
 -405 3/21 2:24 6/23 4:51 9/23 8:02 12/20 21:34 11/23 9:44 5/24 18:49  
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 -402 3/20 19:52 6/22 22:17 9/23 1:32 12/20 15:05 11/23 4:27 5/24 13:32  
 -401 3/21 1:41 6/23 4:06 9/23 7:22 12/20 20:56 11/23 10:41 5/24 19:46  
 -400 3/20 7:30 6/22 9:55 9/22 13:12 12/20 2:46 11/22 16:55 5/24 2:00

# 4TH CENTURY BCE

This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 4th century BCE.

	VERNAL	SUMMER	AUTUMNAL	WINTER		
YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION
-399	3/20 13:19	6/22 15:44	9/22 19:02	12/20 8:36	11/22 23:09	5/24 8:15
-398	3/20 19:08	6/22 21:32	9/23 0:52	12/20 14:27	11/23 5:24	5/24 14:29
-397	3/21 0:58	6/23 3:21	9/23 6:42	12/20 20:17	11/23 11:38	5/24 20:43
-396	3/20 6:47	6/22 9:10	9/22 12:31	12/20 2:07	11/22 17:52	5/24 2:57
-395	3/20 12:36	6/22 14:59	9/22 18:21	12/20 7:58	11/23 0:06	5/24 9:12
-394	3/20 18:25	6/22 20:47	9/23 0:11	12/20 13:48	11/23 6:21	5/24 15:26
-393	3/21 0:14	6/23 2:36	9/23 6:01	12/20 19:38	11/23 12:35	5/24 21:40
-392	3/20 6:04	6/22 8:25	9/22 11:51	12/20 1:29	11/22 18:49	5/24 3:54
-391	3/20 11:53	6/22 14:14	9/22 17:41	12/20 7:19	11/23 1:03	5/24 10:09
-390	3/20 17:42	6/22 20:02	9/22 23:31	12/20 13:09	11/23 7:18	5/24 16:23
-389	3/20 23:31	6/23 1:51	9/23 5:21	12/20 19:00	11/23 13:32	5/24 22:37
-388	3/20 5:20	6/22 7:40	9/22 11:11	12/20 0:50	11/22 19:46	5/24 4:51
-387	3/20 11:10	6/22 13:29	9/22 17:01	12/20 6:40	11/23 2:00	5/24 11:06
-386	3/20 16:59	6/22 19:17	9/22 22:51	12/20 12:31	11/23 8:15	5/24 17:20
-385	3/20 22:48	6/23 1:06	9/23 4:40	12/20 18:21	11/23 14:29	5/24 23:34
-384	3/20 4:37	6/22 6:55	9/22 10:30	12/20 0:11	11/22 20:43	5/24 5:48
-383	3/20 10:26	6/22 12:43	9/22 16:20	12/20 6:02	11/23 2:57	5/24 12:03
-382	3/20 16:16	6/22 18:32	9/22 22:10	12/20 11:52	11/23 9:12	5/24 18:17
-381	3/20 22:05	6/23 0:21	9/23 4:00	12/20 17:42	11/23 15:26	5/25 0:31



-380 3/20 3:54 6/22 6:10 9/22 9:50 12/19 23:33 11/22 21:40 5/24 6:46  
 -379 3/20 9:43 6/22 11:58 9/22 15:40 12/20 5:23 11/23 3:54 5/24 13:00  
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 -377 3/20 21:22 6/22 23:36 9/23 3:20 12/20 17:04 11/23 16:23 5/25 1:28  
 -376 3/20 3:11 6/22 5:25 9/22 9:10 12/19 22:54 11/22 22:37 5/24 7:43  
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 -373 3/20 20:38 6/22 22:51 9/23 2:39 12/20 16:25 11/23 17:20 5/25 2:25  
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 -370 3/20 14:06 6/22 16:17 9/22 20:09 12/20 9:56 11/23 12:03 5/24 21:08  
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 -367 3/20 7:34 6/22 9:43 9/22 13:39 12/20 3:27 11/23 6:45 5/24 15:51  
 -366 3/20 13:23 6/22 15:32 9/22 19:29 12/20 9:17 11/23 13:00 5/24 22:05  
 -365 3/20 19:12 6/22 21:21 9/23 1:18 12/20 15:08 11/23 19:14 5/25 4:19  
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 -362 3/20 12:40 6/22 14:47 9/22 18:48 12/20 8:39 11/23 13:57 5/24 23:02  
 -361 3/20 18:29 6/22 20:36 9/23 0:38 12/20 14:29 11/23 20:11 5/25 5:16  
 -360 3/20 0:18 6/22 2:24 9/22 6:28 12/19 20:19 11/23 2:25 5/24 11:31  
 -359 3/20 6:07 6/22 8:13 9/22 12:18 12/20 2:10 11/23 8:39 5/24 17:45  
 -358 3/20 11:56 6/22 14:02 9/22 18:08 12/20 8:00 11/23 14:54 5/24 23:59  
 -357 3/20 17:46 6/22 19:51 9/22 23:58 12/20 13:50 11/23 21:08 5/25 6:13  
 -356 3/19 23:35 6/22 1:39 9/22 5:48 12/19 19:41 11/23 3:22 5/24 12:28  
 -355 3/20 5:24 6/22 7:28 9/22 11:37 12/20 1:31 11/23 9:36 5/24 18:42  
 -354 3/20 11:13 6/22 13:17 9/22 17:27 12/20 7:21 11/23 15:51 5/25 0:56  
 -353 3/20 17:02 6/22 19:06 9/22 23:17 12/20 13:12 11/23 22:05 5/25 7:10  
 -352 3/19 22:52 6/22 0:54 9/22 5:07 12/19 19:02 11/23 4:19 5/24 13:25  
 -351 3/20 4:41 6/22 6:43 9/22 10:57 12/20 0:52 11/23 10:33 5/24 19:39

-350 3/20 10:30 6/22 12:32 9/22 16:47 12/20 6:43 11/23 16:48 5/25 1:53  
 -349 3/20 16:19 6/22 18:20 9/22 22:37 12/20 12:33 11/23 23:02 5/25 8:07  
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 -345 3/20 15:36 6/22 17:35 9/22 21:56 12/20 11:54 11/23 23:59 5/25 9:04  
 -344 3/19 21:25 6/21 23:24 9/22 3:46 12/19 17:45 11/23 6:13 5/24 15:19  
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 -332 3/19 19:16 6/21 21:09 9/22 1:45 12/19 15:49 11/23 9:04 5/24 18:10  
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 -327 3/20 0:22 6/22 2:12 9/22 6:54 12/19 21:00 11/23 16:15 5/25 1:21  
 -326 3/20 6:11 6/22 8:01 9/22 12:44 12/20 2:51 11/23 22:30 5/25 7:35  
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 -323 3/19 23:38 6/22 1:27 9/22 6:14 12/19 20:22 11/23 17:12 5/25 2:18  
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 -321 3/20 11:17 6/22 13:05 9/22 17:53 12/20 8:02 11/24 5:41 5/25 14:46

-320 3/19 17:06 6/21 18:53 9/21 23:43 12/19 13:53 11/23 11:55 5/24 21:00  
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 -318 3/20 4:44 6/22 6:31 9/22 11:23 12/20 1:33 11/24 0:24 5/25 9:29  
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 -316 3/19 16:23 6/21 18:08 9/21 23:03 12/19 13:14 11/23 12:52 5/24 21:57  
 -315 3/19 22:12 6/21 23:57 9/22 4:53 12/19 19:04 11/23 19:06 5/25 4:12  
 -314 3/20 4:01 6/22 5:46 9/22 10:43 12/20 0:55 11/24 1:21 5/25 10:26  
 -313 3/20 9:50 6/22 11:35 9/22 16:32 12/20 6:45 11/24 7:35 5/25 16:40  
 -312 3/19 15:40 6/21 17:23 9/21 22:22 12/19 12:35 11/23 13:49 5/24 22:54  
 -311 3/19 21:29 6/21 23:12 9/22 4:12 12/19 18:25 11/23 20:03 5/25 5:09  
 -310 3/20 3:18 6/22 5:01 9/22 10:02 12/20 0:16 11/24 2:18 5/25 11:23  
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 -304 3/19 14:13 6/21 15:53 9/21 21:01 12/19 11:18 11/23 15:43 5/25 0:48  
 -303 3/19 20:02 6/21 21:42 9/22 2:51 12/19 17:08 11/23 21:57 5/25 7:03  
 -302 3/20 1:52 6/22 3:30 9/22 8:41 12/19 22:58 11/24 4:11 5/25 13:17  
 -301 3/20 7:41 6/22 9:19 9/22 14:31 12/20 4:49 11/24 10:26 5/25 19:31  
 -300 3/20 13:30 6/22 15:08 9/22 20:21 12/20 10:39 11/24 16:40 5/26 1:45

## 3RD CENTURY BCE

**This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 3rd century BCE.**

VERNAL      SUMMER      AUTUMNAL      WINTER

YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION
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-299	3/20 19:19	6/22 20:57	9/23 2:11	12/20 16:29	11/24 22:54	5/26 8:00
-298	3/21 1:08	6/23 2:45	9/23 8:00	12/20 22:20	11/25 5:08	5/26 14:14
-297	3/21 6:58	6/23 8:34	9/23 13:50	12/21 4:10	11/25 11:23	5/26 20:28
-296	3/20 12:47	6/22 14:23	9/22 19:40	12/20 10:00	11/24 17:37	5/26 2:42
-295	3/20 18:36	6/22 20:11	9/23 1:30	12/20 15:51	11/24 23:51	5/26 8:57
-294	3/21 0:25	6/23 2:00	9/23 7:20	12/20 21:41	11/25 6:05	5/26 15:11
-293	3/21 6:14	6/23 7:49	9/23 13:10	12/21 3:31	11/25 12:20	5/26 21:25
-292	3/20 12:04	6/22 13:37	9/22 19:00	12/20 9:22	11/24 18:34	5/26 3:39
-291	3/20 17:53	6/22 19:26	9/23 0:49	12/20 15:12	11/25 0:48	5/26 9:54
-290	3/20 23:42	6/23 1:15	9/23 6:39	12/20 21:02	11/25 7:02	5/26 16:08
-289	3/21 5:31	6/23 7:04	9/23 12:29	12/21 2:53	11/25 13:17	5/26 22:22
-288	3/20 11:20	6/22 12:52	9/22 18:19	12/20 8:43	11/24 19:31	5/26 4:36
-287	3/20 17:10	6/22 18:41	9/23 0:09	12/20 14:33	11/25 1:45	5/26 10:51
-286	3/20 22:59	6/23 0:30	9/23 5:59	12/20 20:24	11/25 7:59	5/26 17:05
-285	3/21 4:48	6/23 6:18	9/23 11:49	12/21 2:14	11/25 14:14	5/26 23:19
-284	3/20 10:37	6/22 12:07	9/22 17:38	12/20 8:04	11/24 20:28	5/26 5:33
-283	3/20 16:26	6/22 17:56	9/22 23:28	12/20 13:54	11/25 2:42	5/26 11:47
-282	3/20 22:16	6/22 23:45	9/23 5:18	12/20 19:45	11/25 8:56	5/26 18:02
-281	3/21 4:05	6/23 5:33	9/23 11:08	12/21 1:35	11/25 15:11	5/27 0:16
-280	3/20 9:54	6/22 11:22	9/22 16:58	12/20 7:25	11/24 21:25	5/26 6:30
-279	3/20 15:43	6/22 17:11	9/22 22:48	12/20 13:16	11/25 3:39	5/26 12:44
-278	3/20 21:32	6/22 22:59	9/23 4:38	12/20 19:06	11/25 9:53	5/26 18:59
-277	3/21 3:22	6/23 4:48	9/23 10:27	12/21 0:56	11/25 16:08	5/27 1:13
-276	3/20 9:11	6/22 10:37	9/22 16:17	12/20 6:47	11/24 22:22	5/26 7:27
-275	3/20 15:00	6/22 16:25	9/22 22:07	12/20 12:37	11/25 4:36	5/26 13:41
-274	3/20 20:49	6/22 22:14	9/23 3:57	12/20 18:27	11/25 10:50	5/26 19:56
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-270 3/20 20:06 6/22 21:29 9/23 3:16 12/20 17:49 11/25 11:47 5/26 20:53  
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 -250 3/20 16:30 6/22 17:43 9/22 23:53 12/20 14:35 11/25 16:32 5/27 1:37  
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 -248 3/20 4:08 6/22 5:20 9/22 11:33 12/20 2:16 11/25 5:00 5/26 14:06  
 -247 3/20 9:58 6/22 11:09 9/22 17:23 12/20 8:06 11/25 11:15 5/26 20:20  
 -246 3/20 15:47 6/22 16:58 9/22 23:13 12/20 13:56 11/25 17:29 5/27 2:34  
 -245 3/20 21:36 6/22 22:46 9/23 5:02 12/20 19:46 11/25 23:43 5/27 8:49  
 -244 3/20 3:25 6/22 4:35 9/22 10:52 12/20 1:37 11/25 5:57 5/26 15:03  
 -243 3/20 9:14 6/22 10:24 9/22 16:42 12/20 7:27 11/25 12:12 5/26 21:17  
 -242 3/20 15:04 6/22 16:13 9/22 22:32 12/20 13:17 11/25 18:26 5/27 3:31  
 -241 3/20 20:53 6/22 22:01 9/23 4:22 12/20 19:08 11/26 0:40 5/27 9:46

-240 3/20 2:42 6/22 3:50 9/22 10:12 12/20 0:58 11/25 6:54 5/26 16:00  
 -239 3/20 8:31 6/22 9:39 9/22 16:01 12/20 6:48 11/25 13:09 5/26 22:14  
 -238 3/20 14:20 6/22 15:27 9/22 21:51 12/20 12:39 11/25 19:23 5/27 4:28  
 -237 3/20 20:10 6/22 21:16 9/23 3:41 12/20 18:29 11/26 1:37 5/27 10:42  
 -236 3/20 1:59 6/22 3:05 9/22 9:31 12/20 0:19 11/25 7:51 5/26 16:57  
 -235 3/20 7:48 6/22 8:53 9/22 15:21 12/20 6:10 11/25 14:06 5/26 23:11  
 -234 3/20 13:37 6/22 14:42 9/22 21:11 12/20 12:00 11/25 20:20 5/27 5:25  
 -233 3/20 19:26 6/22 20:31 9/23 3:00 12/20 17:50 11/26 2:34 5/27 11:39  
 -232 3/20 1:16 6/22 2:19 9/22 8:50 12/19 23:41 11/25 8:48 5/26 17:54  
 -231 3/20 7:05 6/22 8:08 9/22 14:40 12/20 5:31 11/25 15:02 5/27 0:08  
 -230 3/20 12:54 6/22 13:57 9/22 20:30 12/20 11:21 11/25 21:17 5/27 6:22  
 -229 3/20 18:43 6/22 19:45 9/23 2:20 12/20 17:11 11/26 3:31 5/27 12:36  
 -228 3/20 0:32 6/22 1:34 9/22 8:10 12/19 23:02 11/25 9:45 5/26 18:51  
 -227 3/20 6:22 6/22 7:23 9/22 13:59 12/20 4:52 11/25 15:59 5/27 1:05  
 -226 3/20 12:11 6/22 13:12 9/22 19:49 12/20 10:42 11/25 22:14 5/27 7:19  
 -225 3/20 18:00 6/22 19:00 9/23 1:39 12/20 16:33 11/26 4:28 5/27 13:33  
 -224 3/19 23:49 6/22 0:49 9/22 7:29 12/19 22:23 11/25 10:42 5/26 19:48  
 -223 3/20 5:38 6/22 6:38 9/22 13:19 12/20 4:13 11/25 16:56 5/27 2:02  
 -222 3/20 11:28 6/22 12:26 9/22 19:09 12/20 10:04 11/25 23:11 5/27 8:16  
 -221 3/20 17:17 6/22 18:15 9/23 0:58 12/20 15:54 11/26 5:25 5/27 14:30  
 -220 3/19 23:06 6/22 0:04 9/22 6:48 12/19 21:44 11/25 11:39 5/26 20:44  
 -219 3/20 4:55 6/22 5:52 9/22 12:38 12/20 3:35 11/25 17:53 5/27 2:59  
 -218 3/20 10:44 6/22 11:41 9/22 18:28 12/20 9:25 11/26 0:08 5/27 9:13  
 -217 3/20 16:34 6/22 17:30 9/23 0:18 12/20 15:15 11/26 6:22 5/27 15:27  
 -216 3/19 22:23 6/21 23:18 9/22 6:08 12/19 21:05 11/25 12:36 5/26 21:41  
 -215 3/20 4:12 6/22 5:07 9/22 11:57 12/20 2:56 11/25 18:50 5/27 3:56  
 -214 3/20 10:01 6/22 10:56 9/22 17:47 12/20 8:46 11/26 1:04 5/27 10:10  
 -213 3/20 15:50 6/22 16:44 9/22 23:37 12/20 14:36 11/26 7:19 5/27 16:24  
 -212 3/19 21:40 6/21 22:33 9/22 5:27 12/19 20:27 11/25 13:33 5/26 22:38  
 -211 3/20 3:29 6/22 4:22 9/22 11:17 12/20 2:17 11/25 19:47 5/27 4:53

-210 3/20 9:18 6/22 10:10 9/22 17:06 12/20 8:07 11/26 2:01 5/27 11:07  
 -209 3/20 15:07 6/22 15:59 9/22 22:56 12/20 13:58 11/26 8:16 5/27 17:21  
 -208 3/19 20:56 6/21 21:48 9/22 4:46 12/19 19:48 11/25 14:30 5/26 23:35  
 -207 3/20 2:46 6/22 3:37 9/22 10:36 12/20 1:38 11/25 20:44 5/27 5:49  
 -206 3/20 8:35 6/22 9:25 9/22 16:26 12/20 7:29 11/26 2:58 5/27 12:04  
 -205 3/20 14:24 6/22 15:14 9/22 22:16 12/20 13:19 11/26 9:13 5/27 18:18  
 -204 3/19 20:13 6/21 21:03 9/22 4:05 12/19 19:09 11/25 15:27 5/27 0:32  
 -203 3/20 2:02 6/22 2:51 9/22 9:55 12/20 0:59 11/25 21:41 5/27 6:46  
 -202 3/20 7:52 6/22 8:40 9/22 15:45 12/20 6:50 11/26 3:55 5/27 13:01  
 -201 3/20 13:41 6/22 14:29 9/22 21:35 12/20 12:40 11/26 10:09 5/27 19:15  
 -200 3/20 19:30 6/22 20:17 9/23 3:25 12/20 18:30 11/26 16:24 5/28 1:29

## 2ND CENTURY BCE

**This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 2nd century BCE.**

YEAR	VERNAL EQUINOX	SUMMER SOLSTICE	AUTUMNAL EQUINOX	WINTER SOLSTICE	PERIHELION	APHELION
-199	3/21 1:19	6/23 2:06	9/23 9:14	12/21 0:21	11/26 22:38	5/28 7:43
-198	3/21 7:08	6/23 7:55	9/23 15:04	12/21 6:11	11/27 4:52	5/28 13:58
-197	3/21 12:58	6/23 13:43	9/23 20:54	12/21 12:01	11/27 11:06	5/28 20:12
-196	3/20 18:47	6/22 19:32	9/23 2:44	12/20 17:52	11/26 17:21	5/28 2:26
-195	3/21 0:36	6/23 1:21	9/23 8:34	12/20 23:42	11/26 23:35	5/28 8:40
-194	3/21 6:25	6/23 7:09	9/23 14:23	12/21 5:32	11/27 5:49	5/28 14:54
-193	3/21 12:14	6/23 12:58	9/23 20:13	12/21 11:22	11/27 12:03	5/28 21:09
-192	3/20 18:04	6/22 18:47	9/23 2:03	12/20 17:13	11/26 18:18	5/28 3:23

-191 3/20 23:53 6/23 0:35 9/23 7:53 12/20 23:03 11/27 0:32 5/28 9:37  
 -190 3/21 5:42 6/23 6:24 9/23 13:43 12/21 4:53 11/27 6:46 5/28 15:51  
 -189 3/21 11:31 6/23 12:13 9/23 19:33 12/21 10:44 11/27 13:00 5/28 22:06  
 -188 3/20 17:20 6/22 18:01 9/23 1:22 12/20 16:34 11/26 19:14 5/28 4:20  
 -187 3/20 23:10 6/22 23:50 9/23 7:12 12/20 22:24 11/27 1:29 5/28 10:34  
 -186 3/21 4:59 6/23 5:39 9/23 13:02 12/21 4:15 11/27 7:43 5/28 16:48  
 -185 3/21 10:48 6/23 11:27 9/23 18:52 12/21 10:05 11/27 13:57 5/28 23:03  
 -184 3/20 16:37 6/22 17:16 9/23 0:42 12/20 15:55 11/26 20:11 5/28 5:17  
 -183 3/20 22:26 6/22 23:05 9/23 6:31 12/20 21:45 11/27 2:26 5/28 11:31  
 -182 3/21 4:16 6/23 4:53 9/23 12:21 12/21 3:36 11/27 8:40 5/28 17:45  
 -181 3/21 10:05 6/23 10:42 9/23 18:11 12/21 9:26 11/27 14:54 5/28 23:59  
 -180 3/20 15:54 6/22 16:31 9/23 0:01 12/20 15:16 11/26 21:08 5/28 6:14  
 -179 3/20 21:43 6/22 22:19 9/23 5:51 12/20 21:07 11/27 3:23 5/28 12:28  
 -178 3/21 3:32 6/23 4:08 9/23 11:40 12/21 2:57 11/27 9:37 5/28 18:42  
 -177 3/21 9:22 6/23 9:57 9/23 17:30 12/21 8:47 11/27 15:51 5/29 0:56  
 -176 3/20 15:11 6/22 15:45 9/22 23:20 12/20 14:38 11/26 22:05 5/28 7:11  
 -175 3/20 21:00 6/22 21:34 9/23 5:10 12/20 20:28 11/27 4:19 5/28 13:25  
 -174 3/21 2:49 6/23 3:23 9/23 11:00 12/21 2:18 11/27 10:34 5/28 19:39  
 -173 3/21 8:38 6/23 9:11 9/23 16:49 12/21 8:08 11/27 16:48 5/29 1:53  
 -172 3/20 14:28 6/22 15:00 9/22 22:39 12/20 13:59 11/26 23:02 5/28 8:08  
 -171 3/20 20:17 6/22 20:49 9/23 4:29 12/20 19:49 11/27 5:16 5/28 14:22  
 -170 3/21 2:06 6/23 2:37 9/23 10:19 12/21 1:39 11/27 11:31 5/28 20:36  
 -169 3/21 7:55 6/23 8:26 9/23 16:09 12/21 7:30 11/27 17:45 5/29 2:50  
 -168 3/20 13:44 6/22 14:15 9/22 21:58 12/20 13:20 11/26 23:59 5/28 9:04  
 -167 3/20 19:34 6/22 20:03 9/23 3:48 12/20 19:10 11/27 6:13 5/28 15:19  
 -166 3/21 1:23 6/23 1:52 9/23 9:38 12/21 1:01 11/27 12:27 5/28 21:33  
 -165 3/21 7:12 6/23 7:41 9/23 15:28 12/21 6:51 11/27 18:42 5/29 3:47  
 -164 3/20 13:01 6/22 13:29 9/22 21:18 12/20 12:41 11/27 0:56 5/28 10:01  
 -163 3/20 18:50 6/22 19:18 9/23 3:07 12/20 18:31 11/27 7:10 5/28 16:16  
 -162 3/21 0:40 6/23 1:07 9/23 8:57 12/21 0:22 11/27 13:24 5/28 22:30



-161 3/21 6:29 6/23 6:55 9/23 14:47 12/21 6:12 11/27 19:39 5/29 4:44  
 -160 3/20 12:18 6/22 12:44 9/22 20:37 12/20 12:02 11/27 1:53 5/28 10:58  
 -159 3/20 18:07 6/22 18:33 9/23 2:27 12/20 17:53 11/27 8:07 5/28 17:12  
 -158 3/20 23:56 6/23 0:21 9/23 8:16 12/20 23:43 11/27 14:21 5/28 23:27  
 -157 3/21 5:46 6/23 6:10 9/23 14:06 12/21 5:33 11/27 20:36 5/29 5:41  
 -156 3/20 11:35 6/22 11:59 9/22 19:56 12/20 11:24 11/27 2:50 5/28 11:55  
 -155 3/20 17:24 6/22 17:47 9/23 1:46 12/20 17:14 11/27 9:04 5/28 18:09  
 -154 3/20 23:13 6/22 23:36 9/23 7:36 12/20 23:04 11/27 15:18 5/29 0:24  
 -153 3/21 5:02 6/23 5:25 9/23 13:25 12/21 4:54 11/27 21:32 5/29 6:38  
 -152 3/20 10:52 6/22 11:13 9/22 19:15 12/20 10:45 11/27 3:47 5/28 12:52  
 -151 3/20 16:41 6/22 17:02 9/23 1:05 12/20 16:35 11/27 10:01 5/28 19:06  
 -150 3/20 22:30 6/22 22:51 9/23 6:55 12/20 22:25 11/27 16:15 5/29 1:20  
 -149 3/21 4:19 6/23 4:39 9/23 12:45 12/21 4:16 11/27 22:29 5/29 7:35  
 -148 3/20 10:08 6/22 10:28 9/22 18:34 12/20 10:06 11/27 4:44 5/28 13:49  
 -147 3/20 15:58 6/22 16:17 9/23 0:24 12/20 15:56 11/27 10:58 5/28 20:03  
 -146 3/20 21:47 6/22 22:05 9/23 6:14 12/20 21:47 11/27 17:12 5/29 2:17  
 -145 3/21 3:36 6/23 3:54 9/23 12:04 12/21 3:37 11/27 23:26 5/29 8:32  
 -144 3/20 9:25 6/22 9:43 9/22 17:53 12/20 9:27 11/27 5:40 5/28 14:46  
 -143 3/20 15:14 6/22 15:31 9/22 23:43 12/20 15:17 11/27 11:55 5/28 21:00  
 -142 3/20 21:04 6/22 21:20 9/23 5:33 12/20 21:08 11/27 18:09 5/29 3:14  
 -141 3/21 2:53 6/23 3:09 9/23 11:23 12/21 2:58 11/28 0:23 5/29 9:29  
 -140 3/20 8:42 6/22 8:57 9/22 17:13 12/20 8:48 11/27 6:37 5/28 15:43  
 -139 3/20 14:31 6/22 14:46 9/22 23:02 12/20 14:39 11/27 12:52 5/28 21:57  
 -138 3/20 20:20 6/22 20:35 9/23 4:52 12/20 20:29 11/27 19:06 5/29 4:11  
 -137 3/21 2:10 6/23 2:23 9/23 10:42 12/21 2:19 11/28 1:20 5/29 10:25  
 -136 3/20 7:59 6/22 8:12 9/22 16:32 12/20 8:09 11/27 7:34 5/28 16:40  
 -135 3/20 13:48 6/22 14:01 9/22 22:21 12/20 14:00 11/27 13:48 5/28 22:54  
 -134 3/20 19:37 6/22 19:49 9/23 4:11 12/20 19:50 11/27 20:03 5/29 5:08  
 -133 3/21 1:26 6/23 1:38 9/23 10:01 12/21 1:40 11/28 2:17 5/29 11:22  
 -132 3/20 7:16 6/22 7:27 9/22 15:51 12/20 7:31 11/27 8:31 5/28 17:37

-131 3/20 13:05 6/22 13:15 9/22 21:41 12/20 13:21 11/27 14:45 5/28 23:51  
 -130 3/20 18:54 6/22 19:04 9/23 3:30 12/20 19:11 11/27 21:00 5/29 6:05  
 -129 3/21 0:43 6/23 0:53 9/23 9:20 12/21 1:01 11/28 3:14 5/29 12:19  
 -128 3/20 6:32 6/22 6:41 9/22 15:10 12/20 6:52 11/27 9:28 5/28 18:33  
 -127 3/20 12:22 6/22 12:30 9/22 21:00 12/20 12:42 11/27 15:42 5/29 0:48  
 -126 3/20 18:11 6/22 18:19 9/23 2:50 12/20 18:32 11/27 21:56 5/29 7:02  
 -125 3/21 0:00 6/23 0:07 9/23 8:39 12/21 0:23 11/28 4:11 5/29 13:16  
 -124 3/20 5:49 6/22 5:56 9/22 14:29 12/20 6:13 11/27 10:25 5/28 19:30  
 -123 3/20 11:38 6/22 11:44 9/22 20:19 12/20 12:03 11/27 16:39 5/29 1:45  
 -122 3/20 17:28 6/22 17:33 9/23 2:09 12/20 17:54 11/27 22:53 5/29 7:59  
 -121 3/20 23:17 6/22 23:22 9/23 7:58 12/20 23:44 11/28 5:08 5/29 14:13  
 -120 3/20 5:06 6/22 5:10 9/22 13:48 12/20 5:34 11/27 11:22 5/28 20:27  
 -119 3/20 10:55 6/22 10:59 9/22 19:38 12/20 11:24 11/27 17:36 5/29 2:41  
 -118 3/20 16:44 6/22 16:48 9/23 1:28 12/20 17:15 11/27 23:50 5/29 8:56  
 -117 3/20 22:34 6/22 22:36 9/23 7:17 12/20 23:05 11/28 6:04 5/29 15:10  
 -116 3/20 4:23 6/22 4:25 9/22 13:07 12/20 4:55 11/27 12:19 5/28 21:24  
 -115 3/20 10:12 6/22 10:14 9/22 18:57 12/20 10:46 11/27 18:33 5/29 3:38  
 -114 3/20 16:01 6/22 16:02 9/23 0:47 12/20 16:36 11/28 0:47 5/29 9:53  
 -113 3/20 21:50 6/22 21:51 9/23 6:37 12/20 22:26 11/28 7:01 5/29 16:07  
 -112 3/20 3:40 6/22 3:40 9/22 12:26 12/20 4:16 11/27 13:16 5/28 22:21  
 -111 3/20 9:29 6/22 9:28 9/22 18:16 12/20 10:07 11/27 19:30 5/29 4:35  
 -110 3/20 15:18 6/22 15:17 9/23 0:06 12/20 15:57 11/28 1:44 5/29 10:49  
 -109 3/20 21:07 6/22 21:06 9/23 5:56 12/20 21:47 11/28 7:58 5/29 17:04  
 -108 3/20 2:56 6/22 2:54 9/22 11:45 12/20 3:38 11/27 14:12 5/28 23:18  
 -107 3/20 8:46 6/22 8:43 9/22 17:35 12/20 9:28 11/27 20:27 5/29 5:32  
 -106 3/20 14:35 6/22 14:32 9/22 23:25 12/20 15:18 11/28 2:41 5/29 11:46  
 -105 3/20 20:24 6/22 20:20 9/23 5:15 12/20 21:08 11/28 8:55 5/29 18:00  
 -104 3/20 2:13 6/22 2:09 9/22 11:04 12/20 2:59 11/27 15:09 5/29 0:15  
 -103 3/20 8:02 6/22 7:57 9/22 16:54 12/20 8:49 11/27 21:24 5/29 6:29  
 -102 3/20 13:52 6/22 13:46 9/22 22:44 12/20 14:39 11/28 3:38 5/29 12:43

-101 3/20 19:41 6/22 19:35 9/23 4:34 12/20 20:30 11/28 9:52 5/29 18:57  
 -100 3/21 1:30 6/23 1:23 9/23 10:24 12/21 2:20 11/28 16:06 5/30 1:12

# 1ST CENTURY BCE

**This is a list of a list of spring equinoxes, a list of summer solstices, a list of autumn equinoxes, a list of winter solstices in the 1st century BCE.**

	VERNAL	SUMMER	AUTUMNAL	WINTER		
YEAR	EQUINOX	SOLSTICE	EQUINOX	SOLSTICE	PERIHELION	APHELION
-99	3/21 7:19	6/23 7:12	9/23 16:13	12/21 8:10	11/28 22:20	5/30 7:26
-98	3/21 13:08	6/23 13:01	9/23 22:03	12/21 14:00	11/29 4:35	5/30 13:40
-97	3/21 18:58	6/23 18:49	9/24 3:53	12/21 19:51	11/29 10:49	5/30 19:54
-96	3/21 0:47	6/23 0:38	9/23 9:43	12/21 1:41	11/28 17:03	5/30 2:08
-95	3/21 6:36	6/23 6:27	9/23 15:32	12/21 7:31	11/28 23:17	5/30 8:23
-94	3/21 12:25	6/23 12:15	9/23 21:22	12/21 13:22	11/29 5:31	5/30 14:37
-93	3/21 18:14	6/23 18:04	9/24 3:12	12/21 19:12	11/29 11:46	5/30 20:51
-92	3/21 0:04	6/22 23:53	9/23 9:02	12/21 1:02	11/28 18:00	5/30 3:05
-91	3/21 5:53	6/23 5:41	9/23 14:51	12/21 6:52	11/29 0:14	5/30 9:20
-90	3/21 11:42	6/23 11:30	9/23 20:41	12/21 12:43	11/29 6:28	5/30 15:34
-89	3/21 17:31	6/23 17:18	9/24 2:31	12/21 18:33	11/29 12:43	5/30 21:48
-88	3/20 23:20	6/22 23:07	9/23 8:21	12/21 0:23	11/28 18:57	5/30 4:02
-87	3/21 5:10	6/23 4:56	9/23 14:10	12/21 6:14	11/29 1:11	5/30 10:16
-86	3/21 10:59	6/23 10:44	9/23 20:00	12/21 12:04	11/29 7:25	5/30 16:31
-85	3/21 16:48	6/23 16:33	9/24 1:50	12/21 17:54	11/29 13:39	5/30 22:45
-84	3/20 22:37	6/22 22:22	9/23 7:40	12/20 23:44	11/28 19:54	5/30 4:59
-83	3/21 4:26	6/23 4:10	9/23 13:29	12/21 5:35	11/29 2:08	5/30 11:13

-82 3/21 10:16 6/23 9:59 9/23 19:19 12/21 11:25 11/29 8:22 5/30 17:27  
 -81 3/21 16:05 6/23 15:48 9/24 1:09 12/21 17:15 11/29 14:36 5/30 23:42  
 -80 3/20 21:54 6/22 21:36 9/23 6:59 12/20 23:06 11/28 20:51 5/30 5:56  
 -79 3/21 3:43 6/23 3:25 9/23 12:48 12/21 4:56 11/29 3:05 5/30 12:10  
 -78 3/21 9:32 6/23 9:13 9/23 18:38 12/21 10:46 11/29 9:19 5/30 18:24  
 -77 3/21 15:22 6/23 15:02 9/24 0:28 12/21 16:36 11/29 15:33 5/31 0:39  
 -76 3/20 21:11 6/22 20:51 9/23 6:18 12/20 22:27 11/28 21:47 5/30 6:53  
 -75 3/21 3:00 6/23 2:39 9/23 12:08 12/21 4:17 11/29 4:02 5/30 13:07  
 -74 3/21 8:49 6/23 8:28 9/23 17:57 12/21 10:07 11/29 10:16 5/30 19:21  
 -73 3/21 14:38 6/23 14:17 9/23 23:47 12/21 15:58 11/29 16:30 5/31 1:35  
 -72 3/20 20:28 6/22 20:05 9/23 5:37 12/20 21:48 11/28 22:44 5/30 7:50  
 -71 3/21 2:17 6/23 1:54 9/23 11:27 12/21 3:38 11/29 4:58 5/30 14:04  
 -70 3/21 8:06 6/23 7:43 9/23 17:16 12/21 9:28 11/29 11:13 5/30 20:18  
 -69 3/21 13:55 6/23 13:31 9/23 23:06 12/21 15:19 11/29 17:27 5/31 2:32  
 -68 3/20 19:44 6/22 19:20 9/23 4:56 12/20 21:09 11/28 23:41 5/30 8:47  
 -67 3/21 1:34 6/23 1:08 9/23 10:46 12/21 2:59 11/29 5:55 5/30 15:01  
 -66 3/21 7:23 6/23 6:57 9/23 16:35 12/21 8:49 11/29 12:10 5/30 21:15  
 -65 3/21 13:12 6/23 12:46 9/23 22:25 12/21 14:40 11/29 18:24 5/31 3:29  
 -64 3/20 19:01 6/22 18:34 9/23 4:15 12/20 20:30 11/29 0:38 5/30 9:43  
 -63 3/21 0:50 6/23 0:23 9/23 10:04 12/21 2:20 11/29 6:52 5/30 15:58  
 -62 3/21 6:40 6/23 6:12 9/23 15:54 12/21 8:11 11/29 13:06 5/30 22:12  
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